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ABSTRACT

Addressing the need for effective teaching and accountability in music instruction, this document describes a study of an inservice project to train teachers in the use of consistent verbal and nonverbal behaviors. The project involved 27 music teachers in the inner city, multiracial community of East Harlem in New York City. The workshop sessions included a discussion of classroom management techniques; procedures for using the measurement instrument; and the observation, identification, and evaluation of specific teacher performances in classroom activities. Pre- and post-training classroom sessions were videotaped. Results indicated that after training, teachers became more aware of their behaviors in relation to classroom interaction. Workshop participants were able to pinpoint areas of academic and social teaching inconsistencies and were able to take steps to correct them. Those teachers who maintained the greatest percentage of consistency found that classroom disruptiveness was reduced and more attention was paid to academics. The use of videotapes was considered valuable in that teachers were able to identify their own behaviors. (KC)

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MUSICAL ACCOUNTABILITY:
The Measurement of Music Teacher Behaviors

Accentuating the Positive

CARLESTA HENDERSON

Hostility and disruptiveness in the classroom is often equated with the idea that "the teacher does not know how to teach." This problem, which was once associated rather exclusively with the inner city schools, has now become a national issue. Music teachers are caught in this dilemma as well as being confronted with student negative attitudes toward the music programs (curricula). Students feel, with some justification, that the music being taught is not "our music". However, in spite of these major difficulties, music teachers must continue to maintain a well-rounded, quality music program with the emphasis upon developing a variety of music skills, while maintaining a wholesome learning environment.

Due to today's fiscal crisis which is causing the genocide of music programs and music educators throughout the country, the measurement of music teacher effectiveness become imperative. Survival of the arts, in general, depends upon the ability of teacher/performers to show the specific cognitive learning levels as well as the hard to measure aesthetic affective learning levels of their students in a quantitative way. Music's value is too often measured by what it can and should do for people, and its aesthetic capabilities are discussed in terms of intangible worth. Musicians know that these intrinsic values are real but they must rely on more hard core data for future life of the arts.

Regardless of music's relevance to the students' tastes or the beauty of the music chosen to teach, the most crucial starting point in maintaining such a program lies with the teacher through the establishment of consistent teaching process patterns. Such patterns are concerned with the social and academic behaviors of both teachers and students and comprise the total classroom interactive environment. Teacher affects or teacher accountability, if you will, is inseparably linked with student learning. It may be that the central problem in understanding teacher effectiveness is establishing a clear understanding of the relationship between behavior and teacher effect. Indeed, the most superior musicianship is not a guarantee of effectivness in the classroom. Instructive success, then, as a teacher of music, depends upon the degree to which learning behavior patterns are consistently used in the transmission of musicianship and knowledge.

The body of learning behaviors (**social** and academic), further divide into two basic categories: verbal and nonverbal. Many teachers readily accept the notion that to be instructive is to be verbal. For a very long time, the common belief was that "teaching was telling." While words and verbalism may be the traditionally preferred symbols of schooling, they do not present the only means of influencing learning. Cultural, sociological, and psychological elements come into play during the classroom interaction processes.

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Teachers are usually aware of their verbal behavior, however they may be grossly unaware of the enormous power of many nonverbal clues they express through gesture, facial expression, posture, vocal tone, outward demeanor, or more importantly, the inconsistencies between their paired verbal and nonverbal behaviors. Nonverbal expressions convey attitudes and impressions which may affect the teaching-learning process and may be of particular importance in the acculturation of minority groups. Indeed, no teacher is effective in a noise ridden, hostile classroom environment.

In major metropolitan areas, student population is drawn from a substantial number of minority groups. Teacher (Lesser et al, Stodolsky and Lesser, Coleman, Loban and Bernstein) shows that special training is necessary to effectively communicate with the socio-economically disadvantaged or culturally different persons who understand the least amount of information verbally transmitted, will read the most meaning into nonverbal behavior of the teacher.[2]

The study of music as a behavior, and the methodology and findings of the psychology of music have been applied in numerous research dealing with effective classroom management. The music education profession has felt the influence of these results. However, greater use of these research findings need to be made. There is a growing realization that more imphasis in both college pre-service and teacher in-service training programs is being placed upon the study of effective teaching techniques and the systems for analyzing teacher-student interaction in the classroom. Adult social reinforcement (teacher approval and positive interaction) has been found to be essential to effective classroom management (Becker and Armstrong, Becker et al, Cooper et al, Walker and Buckley, Thompson, Brassell, et al) and many others.[3] Indeed, the technology required to apply principles of operant conditioning to the classroom has dramatically increased. There is substantial evidence of the importance of teacher approval behavior during music instruction in the classroom. Data from such studies which show that contingency management systems accelerate appropriate behaviors, i. e., reduction of disruptive behavior and greater on task behavior, are certainly of value to music educators, particularly in inner city environments.

Greer et al, Kuhn, Forsythe, C. K. Madsen, D. Greer, and C. H. Madsen, Steele, and Greer, et al[4] found that the amount of teacher approval received by a music student determines the extent of the student's free operant listening to the music taught. Kuhn's investigation revealed that high teacher approval causes greater adherance to classroom rules than does low approval. Steele found that children's music selection behavior was affected by adult approval during the period that social reinforcement was occuring but once that reinforcement was withdrawn, the children reverted to nonreinforced selection. While Green et al, Steele, and Kuhn were concerned with effects of adult approval on children's music discrimination behaviors, Forsythe researched the effect of traning of music teachers in high approval techniques. His data showed that music teachers trained in these techniques had more attentive students than the teachers in other subject matter and that with approval ratios statistically controlled, students were more attentive in music classes than other classes.

In this age of credibility and accountability, education must prove its worth. Industry, and other big business enterprises are being called upon to devise systems of evaluation which give feedback to employers and employees alike. Education now seeks to do the same. We are most certainly responsible to those we teach as well as to those financially and personally responsible for them, to perform the services of academic and social instruction. Moreover, because we chose to be teachers, we have a deep responsibility to ourselves to be the most effective teacher possible. How then can we as music teachers improve our methods of teaching so that we exchange both the communication of course content and our relationship with our students? How can we infuse into the content of our courses the values implicit in the quest for truth, rational discourse, social responsibility and respect for human integrity? Most importantly, how can we measure our effectiveness? Accountability in academe must be realized not on value judgments but rather on measurable behavior which will in turn provide feedback to administrators, instructors and students alike. How much does a student learn? How many facts and/or skills did I transfer to the class this week? What percentage of time did I devote to performance, lecture, or demonstration today? How much time (percentage) did students ask questions or display appropriate academic and social behavior? What <u>really</u> is happening in my classes? By adopting a more systematic approach to the problems of the classroom, the teacher may more accurately evaluate procedures used in attempting to change or establish music behaviors of students and <u>measure the degrees of those learning behaviors</u>.

Historically we have learned to account for those behaviors which can be measured or observed through tangible procedures; and in many cases, we do not teach as well as we do. (Henderson[5]). However, as music teaches our disciplines are so musically steeped in performance based behavior, it is quite easy to measure teacher effectiveness.

<u>The Research Project</u>

It is rare when a music teaching staff in an entire community involves itself with an **in-service** training program which necessitates an open examination of the effectiveness of each member of the teaching staff. However, such was the case when the music teachers in District IV of New York City, an inner city, multiracial community, desirous of utilizing research findings in music teaching effectiveness, agreed to participate in a program designed to raise the level of their own effective teaching behaviors. The project's objective was to train teachers in the use of consistent verbal and nonverbal behaviors. The system employed was based upon the findings of research in operant conditioning techniques.

In order for the program to be initiated, several preliminary steps were taken. First, the school board and the supervisor of music was approached and approved with the idea of undertaking such a research endeavor. This was followed by the approval of the principals of each school and the teachers directly affected. Once these steps were taken and approval given by all, and necessary scheduling made, the research project was launched.

Procedure

The population for this study consisted of twenty-seven music teachers of target area schools in East Harlem, New York City. The research was conducted within a four month time span and was limited to participation by music teachers in these schools comprising a control-experimental group design, incorporating principles of behavior modification with the experimental group. All classroom observations of both groups were made via video-taping. There were two pre-training and two post-training observations of the participants. All observations were conducted in four separate fifteen minute time segments and were scheduled to coincide with already existing schedules of each teacher within his or her assigned schools. The experimental group was randomly assigned after the pre-training observations which was followed by a two week in-service training workshop in which principles of classroom management involving techniques of maintaining consistent teacher behaviors were stressed. After the training period both groups were then observed twice. For this study, the four separate classroom observations of the twenty-seven music teachers recorded on a modified instrument (Henderson) formed the raw data. The observations consisted of recording the frequency of specific social and academic approval/disapproval behaviors by teachers in time interval segments. All observations (video-taped) were recorded by trained observers. Inter-observer reliability was determined via estimate percentage of agreement among observers (Hall).[6] Percentage of time each teacher behaved in a category was obtained by dividing the number of intervals that were checked by the total number of intervals in the class period. Observational reliability was computed by dividing the total number of observational agreements by the total number of agreements plus disagreements. Inter-observational agreement ranged from .80 to 1.00 with an average of .88. These hard data were subjected to specific statistical computation.

The results of the project brought forth very significant findings for all the teachers involved, both individually and as a group. In the experimental group, teacher behavior exhibited which was video-taped, was both specific and measureable in a quantitative and qualitative sense and observations provided opportunities for sharing teaching methods and materials. Because of the playback capabilities of the video-tapes, each teacher was able to identify his or her own behaviors. Teachers could see and hear what they had done in specific classroom activities and as often as they deemed necessary. In addition, the in-service training workshop capitalized on the capacity of skilled and dedicated teachers to choose those academic and social classroom behaviors which were desired for maximum effectiveness. Self-determined goals (criteria) set up in behavioral terms, and monitored by the teacher or by a group of his peers, created a procedure in which the teacher set up standards of effectiveness whereby he was in competition with himself. The boundaries of achievement were their own. The workshop sessions included a discussion of operant techniques for classroom management, procedures for using the measurement instrument and observation, identification, and evaluation of specific teacher performances in classroom activities.

The workshop participants found that the hardest task was to be consistent in adhering to self-determined goals. As a result of the data obtained from the teacher effects measurement instrument, workshop participants could pinpoint areas of academic and social teaching inconsistencies and could set about to correct them. For example, failure to adhere to class rules, which they had established jointly with their students, provided the identification of the noncontingent teacher behaviors. Before training, that specific behavior could not have been accurately determined.

Those who did maintain the greatest percentage of consistency found greater favorable results in terms of reduction of disruptiveness in the classroom and more attention to academics (music skills and fundamentals and music performance). In fact, students were more receptive, respectful of the teacher and each other, and the music lessons took on a more productive tone. Perhaps the greatest benefit of the project was that it served to point up what actually was taking place in the classrooms and provided tangible measurement of teacher behaviors. Teachers discovered that knowledge of the subject and how to interact with students on a consistent basis, too often, did not correspond. In most cases, the teachers discovered how little they were really giving <u>any</u> kind of verbal or nonverbal feedback to their classes during specific lessons, whether it was singing, playing, listening or whatever (pre-training data). Reliance on the aural communication of music alone was not defined teacher/student interaction, but more music/student interaction. Data also revealed that age and experience were not guaranteed of consistency of teaching behaviors.

There were several "fringe benefits" as a result of the project. During the workshop, what had begun as a rather hesitant, unsettling self and group evaluation experience, gradually became an open, sharing, constructive team effort. Teachers learned from their own, as well as the classroom performance, behaviors of others. Although the control group had no workshop training, the process of having themselves observed via video tape brought forth greater attention to the task of teaching. Post observation data of this group showed more attention to academic activity although their other interactive levels were not greatly increased.

The following sampling of questionaire responses offered by the workshop participants may give indications of their assessments of the in-service training experience. (Note: The statements are unedited.)

QUESTION: What aspect of the workshop was most useful? Be specific.

ANSWERS:

"Seeing myself on tape and analyzing what I need in terms of it."
"The making of social and **academic** rules with children. They seem to regard them more when they have a hand in making them".
"Insights into Behavior Modification that were provided."
"The use of scientific measurement to help me analyze my own behavior."
"Systematizing of classroom methods into a simple, workable formula, and sharing music materials and approaches to teaching music activities."
"Maturing to the point that it became a scientific obse vation that could be accurately analyzed."

QUESTION: What aspects of the workshop were the least useful? Be specific.

ANSWERS:

"It was too short."
"Probably the doffee and the cake."
"I did get annoyed by the comments of some of the teachers who were not thinking in terms of the new approach to Behavior Modification."
"The fact that some of us find it difficult to try new techniques."
"Too much time with theory. Didn't leave enough time for analyzing tapes."

QUESTION: What techniques discussed in the workshop have aided you the most in your effectiveness in the classroom? Specify.

ANSWERS:

"The firm establishments of "Rules"".
"Systematizing classroom methods. Consistency of my behavior."
"The technique of "accentuating the positive". Giving praise when it is earned."
"The use of more nonverbal communication."
"A general awareness of teaching styles."

QUESTION: What techniques discussed in the workshop aided you the least in your effectiveness in the classroom? Specify.

ANSWERS:

"I never seemed to be able to ignore disruptive behavior."
"Use of gifts as reward. To expensive."

QUESTION: What procedure or activities would you suggest which could in your opinion make such a workshop more profitable? Be specific.

ANSWERS:

"The workshop should be sort of continuous or happen once a year so that one could benefit by re-evaluation of oneself."
"Workshop is most profitable as it is. However, I think it is best suited to fit the needs of new or very ineffective teachers. One needs to constantly re-evaluate his skill, though."
"A few weeks of this course goes a long way but not long enough. It offered the first real answers to problems I have had the past four years of teaching."

GENERAL COMMENTS:

"The workshop was not only education, informative, interesting, stimulating --- but in some ways, it was soothing."

"The techniques are the clearest approach to discipline I've ever seen. It really is an operational approach and allows you to pinpoint problems in a way that I had tho't was impossible."

Perhaps a few more concluding statements need to be made. The findings of this research project, while by no means conclusive, do appear to offer a more scientific approach, via improved measurement, to classroom observational methodology. Also, the research was perhaps the first descriptive study of music teacher approval-disapproval behavior in the classroom interaction. (Data in this study seemed to indicate that a 60% Approval/Disapproval---40% No interaction, or a 70% Approval/Disapproval---30% No interaction ratio may be the current one in music classroom interaction.

In-service teacher-training programs rarely offer "hard core" cata in support of its success. It is just as unusual for a research project to offer a neatly packaged set of training materials. A project with potentials of offering both should lend itself to further examination and exploration. Perhaps the most important effect of this project was that it forced teachers to re-think what they were doing and their enthusiasm after the workshop seemed adequate testimony to the value of the stimulus provided. The results of this re-examination process seemed to include a more analytical approach to teaching, as well as closer attention to pupils' responses. (Although the benefits seemed less related to the specific skill training provided than to the general attention to class interaction, one does not really exist without the other.)

Judging from comments made in the questionnaires, teachers, after training, became more aware of their teacher behaviors in relation to classroom interaction. Developing consistency in verbal and nonverbal communication, however, requires more than awareness. It requires practice. Teacher contingencies are subsequently based on gradually expanding time between external reinforcements and ultimate internalization. Moreover, efficient teacher behavior measurement may provide more realistic evaluation tools to help insure the life of music education.

The accepted philosophy of music as an aesthetic force and the philosophy of operant conditioning are interrelated. Both philosophies are based upon the idea of "the goodness of man". Consequently, love, honesty, and respect are inherent in the approaches of both. The teacher who really cares about a child will have the courage to teach him proper social and academic associations and will in so doing, promote disciplines. It is through self-discipline and self-realization that one approaches aesthetic appreciation whether it be found in music or other related arts.

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